S.#	Question	Option (A)	Option (B)	Option (C)	Option (D)	Correct Answer
1	Bacteriophages, or phages are also known as	bacteria facilitator	bacteria eater	animal viruses	plant viruses	B
2	Virus is a ___entity among living and non-living	balanced	transitional	threshold	none of these	B
3	These viruses usually occur in two structural forms	HIV	HCV	bacteriophage	COVID-19	C
4	The Long chains of HIV-Proteins is cut down by proteases enzyme of ___	HIV virus	host proteases	both viral and host proteases	none of these	A
5	Whenever a virus encounters an unfamiliar organism, the virus may undergo multiple mutations and emerge as a variant that produces	severe and novel disease	noval disease	Mutated	none of these	A
6	Which of the following is the trace element___	hydrogen	copper	oxygen	carbon	B
7	Cooperation of the two photosystems of the chloroplast is required for___	ATP synthesis	reduction of NADP	cyclic photophosphorylation	oxidation of the reaction center of photosystem I	B
8	FADH2 is produced in_____	glycolysis	the oxidation of pyruvates	Kreb's cycle	all of these	C
9	NADPH2 is formed in photosynthesis but in respiration it forms during	HMP	ETS	Kreb's cycle	none of these	A
10	Succinate is oxidized and formed	FAD	FADH	FADH2	NADH2	C
11	Human accumulated glycogen is an example of	phospholipid	polysaccharides	carbohydrates	both b and c	D
12	The actual replica of chromosome is___	Chromatin	chromatids	centromere	polar dyes	B
13	The high content of which amino acid confers resistance, stability and insolubility to hairs, nails and skin___	Glycine	alanine	methionine	cysteine	D
14	Restriction endonucleases	are bacterial enzyme	convert RNA to DNA	hydrolyze protein into amino acids	get mutated for DNA repair	A
15	Centrifugation is a_____	process in which samples are spun at high speed	efficient process of fabrication	slow but excellent process	none of these	A
16	This enzyme is used to cut DNA molecule in rDNA technology	ligase	phosphatase	ribonuclease	restriction enzyme	D
17	Avidin is a protein that	binds egg white with biotin	binds egg white with egg albumin	both a and b	this protein do not belong to egg white	A
18	They are called genetically modified plants containing	no gene	gene in transposition	widely used in gene transfer	all of these	C
19	The type of plastids found in roots of plants _____ .	Chloroplasts	Chromoplasts	Leucoplasts	All of them	C
20	The spent energy in the form of ADP is regenerated by mitochondria into which of the following?	AMP	ATP	ADP	all of these	B
21	Movement of the material across the cell membrane which does not requiring expenditure of metabolic energy is called?	active transport	passive transport	diffusion	both b and c	D
22	An animal has 80 chromosomes in its gametes, how many chromosomes will be seen in the animal's muscle cells?	120	240	40	160	D
23	If replication was completely conservative then?	one heavy and one light strand would be seen	both heavy strands would be seen	both light strands would be seen	none of these	A
24	In humans the sequence TTAGGG is repeated how many times?	3000	4000	2500	3500	C
25	Most protein coding genes are found in?	repetitive DNA	RNA	single copy DNA	none of these	C
26	The molecular basis of sickle cell anaemia was found by?	F. Sanger	Beadle	Tatum	Ingram	D
27	When cocaine is used as a stimulant, it interferes with the CNS at the reuptake of which hormone?	testosterone	dopamine	serotonin	adrenaline	B
28	In the peripheral nervous system, the nerves that arise from spinal cord and brain are called?	frontal nerves	temporal nerves	cranial nerves	spinal nerves	C
29	In the human body, the group formed by neurons enclosed in the membrane at certain body parts is called?	benign	malign	ganglion	neuroglial	C
30	The pea-shaped gland attached to the brain's hypothalamus is known as?	iodopsin glands	thyroid gland	rhodopsin glands	pituitary glands	D
31	What is the conditions of the neurons under resting membrane potentials?	Inner surface of neuron is more positive	Both of these surfaces are equally positive	Outer surface of neuron is more positive	all of these	C
32	The fate of each blastomere is foretold. What will that cleavage be?	Spiral and indeterminate	Radial and indeterminate	Radial and indeterminate	Spiral and determinate	D
33	All of the following coelenterates show alternation of generation except?	hydra	obelia	aurellia	all of these	A
34	Which system is present in nematodes?	Sac - like digestive system	Circulatory system	Respiratory system	Tube - like digestive system	D
35	The animals of division Radiata are which of the following?	triploblastic	diploblastic	radioblast	all of these	B
36	Irreversible modifications require the synthesis of which of the following?	enzymes	carbohydrates	vitamins	proteins	D
37	The effect of competitive inhibitor on enzyme activity is such that it affects which of the following?	increases enzyme activity	doesn't change enzyme activity	decreases enzyme activity	none of these	C
38	Upon increasing the temperature the shape of enzyme's active site?	remains same	changes	adopts a geometric conformation	denatures	B
39	The optimum pH for enzyme arginase is which of the following?	9	9.3	9.7	10	C
40	Mating with non-relatives is known as?	inbreeding	outbreeding	breeding	none of these	B
41	Natural selection can amplify or diminish variations that are?	Heritable	non heritable	both a and b	acquired	A
42	Who developed a theory of natural selection essentially identical to Darwin's?	Hardy-Weinberg	Malthus	Lamark	Alfred Wallace	D
43	Which condition can be explained by Lamarckism?	How giraffes got their long neck	How humans lost their tail	How humans became bipedal	all of these	D
44	In osmosis water molecules move from area of?	Higher solute concentration to lower solute concentration	Lower solvent concentration to higher solvent concentration	Lower solute concentration to higher solute concentration	all of these	C
45	Midgut in cockroach is a short narrow tube called which of the following?	Hepatic caeca	rectum	stomach	gizzard	C
46	Thick, waxy & leathery cuticle around leaves is present in which of the following?	Hydrophytes	Mesophytes	Halophytes	Xerophytes	D
47	There are how many stomata per square cm of leaf surface in Tobacco plants?	10000	12000	15000	20000	B
48	The maximum amount of oxygen which normal human blood absorbs and carries at sea level is how many ml per 100 ml of blood?	10	20	30	40	B
49	Who coined the term Animalcules for microorganisms like Bacteria and protozoa?	Robert Koch	Louis Pasteur	Alexander Fleming	Leeuwenhoek	D
50	Cyanobacteria have which of the following type of cell wall?	gram positive	gram negative	cellulose	acid fast	B
51	The process of recombination in prokaryotes takes place in which of the following ways?	transformation	conjugation	transduction	all of these	D
52	In asexual reproduction offspring are produced by which of the following?	meiosis	mitosis	both a and b	none of these	B
53	Fetus is human embryo from the beginning of which of the following?	2nd month	3rd month	4th month	5th month	B
54	Which of these cycles operate in human females?	Oestrous cycle	Menstrual cycle	both a and b	none of these	B
55	In the male reproductive tract, sperm cells follow a specific path. Which of the following do sperm cells enter after traveling through the epididymis?	Urethra	Seminiferous tubules	Ejaculatory duct	Vas deferens	D
56	What structure marks the separation between two sarcomeres?	I band	H zone	A band	Z disc	D
57	Which of the following is a uni-nucleated cell?	skeletal muscle	cardiac muscle	smooth muscle	all of these	C
58	Why skeletal muscles are called striated muscles?	appear darker than smooth muscles by naked eye	Alternating dark and light bands appear on their surface when visualized by naked eye	Alternating dark and light bands appear on their surface when visualized via a microscope	all of these	C
59	A smallest contractile unit of muscle contraction called sarcomere is the area between two?	H zone	M line	Z line	Z zone	C
60	In the sliding filament theory of muscle contraction, all but which of the following are functions of ATP?	ATP does all of these things during muscle contraction	It allows the myosin head to detach from the actin filament	It moves tropomyosin off of actin binding sites	both a and b	C
61	The alternative forms of same gene is called which of the following?	locus	gene	allele	phenotype	C
62	Homozygous chromosomes include which of the following?	diploid cells	polyploid cells	both a and b	none of these	C
63	The phenomenon in which the effect of one allele in heterozygous genotype completely masks the effect of other is called	codominance	dominance	incomplete dominance	complete dominance	D
64	According to the law of independent assortment, what is the possible number of combinations that chromosomes can assort to independently in the gamete?	16,777,216	2,048	4,194,304	8,388,608	D
65	Which of the following statement about plants is incorrect?	All are eukaryotes	They are multicellular.	Non-motile organisms	Are heterotrophs	D
66	The space between the overtopped dichotomous branches was occupied by a sheet of which cells during evolution of megaphylls?	Sclerenchyma	Parenchyma	Collenchyma	Chlorenchyma	D
67	What is the name of the structure of the leaf that attaches the leaf to the stem?	phloem	mesophyll	xylem	petiole	D
68	Those fungi which can grow only on their living host and cannot be grown on available defined growth culture medium e.g. various mildews and most rust species are called?	Parasitic fungi	Facultative parasitic fungi	Obligate parasitic fungi	all of these	C
69	Brown algae are also known as which of the following?	Rhodophyta	Pyrrophyta	Chrysophyta	Phaeophyta	D
70	Of the following which one is not the characteristic of green algae?	They are generally accepted as the ancestors of green plants	Chlorella is unicellular non-motile green algae	Some green algae possess cell wall with cellulose	none of these	C